

Chapter 88

Report on the Global Environment

Competitiveness of Madagascar

Madagascar is located in the Indian Ocean, off the southeastern coast of Africa. It is the fourth-largest island and covers 581,240 square kilometres. Madagascar is a biodiversity hotspot. The combination of southeastern trade winds and northwestern monsoons produces a hot rainy season and a relatively cooler dry season. It had a population of 21.3 million and domestic production the gross (GDP) of USD 9.9 billion in 2011. Through the evaluation of global environment competitiveness, we can know that the environment competitiveness index of Madagascar ranks at 119 among 133 countries.

Score:
44.06
Rank:
119

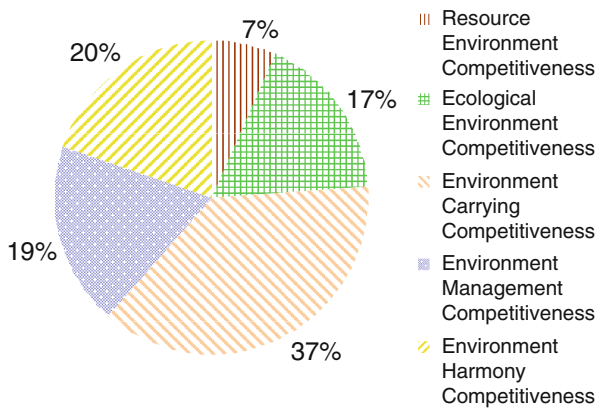


Fig. 88.1 Contribution of sub-index of GEC

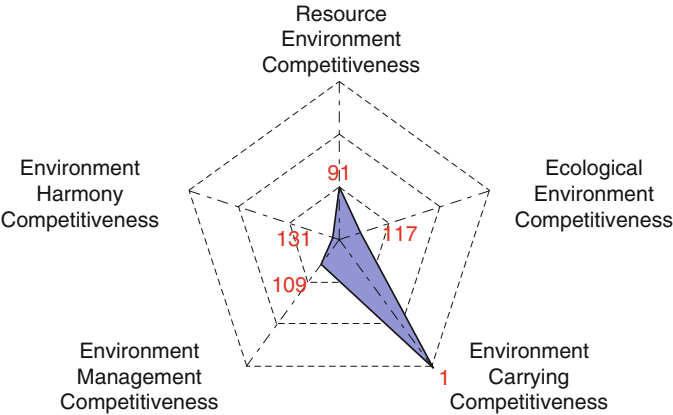


Fig. 88.2 Rank of sub-index of GEC

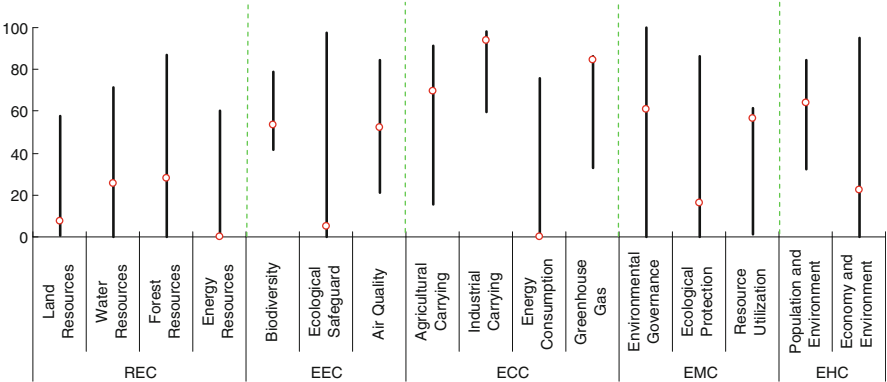


Fig. 88.3 Score and rank of the pillars of GEC

Table 88.1 Score and rank of all indicators of GEC

Indicators	Score	Rank	Indicators	Score	Rank
1 Resource Environment Competitiveness	14.66	91	Total internal renewable water resources	29.23	41
1.1 Land Resources	7.28	108	1.3 Forest Resources	28.24	74
Land area per capita	4.89	39	Growing stock in forest and other wooded land	56.50	27
Percentage of arable land to total land area	10.06	100	Proportion of land area covered by forest	25.17	76
Arable land per capita	7.68	72	Forest area per capita	4.09	44
1.2 Water Resources	25.19	40	1.4 Energy Resources	0.00	125
Surface water	6.16	52	Fossil energy	0.00	64
Annual precipitation	51.79	35	Energy production	N/A	N/A
Groundwater	13.59	53			

(continued)

Table 88.1 (continued)

Indicators	Score	Rank	Indicators	Score	Rank
Proportion of combustible renewables and waste to total energy consumption	N/A	N/A	3.3 Energy Consumption	N/A	N/A
Net energy imports of the energy consumption	N/A	N/A	Energy consumption per unit of land area	N/A	N/A
2 Ecological Environment Competitiveness	38.24	117	Ratio of clean energy consumption	0.00	116
2.1 Biodiversity	53.41	117	Elasticity of energy consumption	N/A	N/A
Threatened fish species	59.91	123	Elasticity of electric power consumption	N/A	N/A
Threatened mammal species	64.67	127	3.4 Greenhouse Gas	84.44	2
Threatened plant species	84.07	124	Growth rate of CO ₂ emissions	76.67	7
GEF benefits index for biodiversity	29.20	14	Growth rate of Methane emissions	N/A	N/A
2.2 Ecological Safeguard	4.89	112	CO ₂ emissions per unit of land area	100.00	5
Terrestrial protected areas	8.15	107	CO ₂ emissions per unit of energy consumption	N/A	N/A
Marine protected areas	0.00	90	4 Environment Management Competitiveness	41.80	109
2.3 Air Quality	51.87	87	4.1 Environmental Governance	60.97	119
Inhalable particles (PM10)	79.56	66	Agricultural chemicals regulation	71.43	63
Particulate matter (PM2.5)	97.32	9	Percentage of the rural population with access to an improved water source	34.00	118
Index of indoor air pollution	0.10	129	Percentage of the urban population with access to an improved water source	74.00	125
Nitrogen oxides emission	68.96	6	4.2 Ecological Protection	16.20	113
Sulfur dioxide emission	40.83	47	Area of plantation and afforestation	0.54	52
3 Environment Carrying Competitiveness	82.41	1	Biome protect	18.00	108
3.1 Agricultural Carrying	69.87	46	Overfishing of fishing resources	35.29	82
Cereal yield per unit of arable land	29.51	65	4.3 Resource Utilization	56.76	5
Fertilizer consumption per unit of arable land	99.79	10	Utilization rate of water resources	0.17	82
Annual freshwater withdrawals for agriculture per unit of arable land	93.76	100	Percentage of total internal renewable water resources to total water resources	87.08	23
3.2 Industrial Carrying	93.61	39	Percentage of agricultural land to total land area	83.02	15
Net exports as a percentage of GDP	90.58	19			
Electric power consumption per unit of value added of industry	N/A	N/A			
SO ₂ emissions per unit of value added of industry	99.02	119			
Annual freshwater withdrawals for industry per value added of industry	91.22	111			

(continued)

Table 88.1 (continued)

Indicators	Score	Rank	Indicators	Score	Rank
Percentage of fossil fuel energy consumption to total energy consumption	N/A	N/A	SO ₂ emissions (metric tons per capita)	98.86	23
5 Environment Harmony Competitiveness	43.17	131	CO ₂ emissions (metric tons per capita)	99.89	3
5.1 Population and Environment	63.87	107	Energy consumption per capita	N/A	N/A
Improved sanitation facilities (% of population with access)	11.00	128	5.2 Economy and Environment	22.47	131
Motor vehicles (per 1,000 people)	97.04	26	Land resource utilization efficiency	0.00	127
Renewable internal freshwater resources per capita	19.13	24	Sulfur dioxide emissions per unit of GDP	79.51	114
			Carbon dioxide emissions per unit of GDP	94.94	15
			Energy consumption per unit of GDP	N/A	N/A

Table 88.2 Rank distribution of the individual indicators of GEC

Sub-index	Number of the individual indicators	Rank 1–10	Rank 11–30	Rank 31–60	Rank 61–100	Rank 101–133
Resource Environment Competitiveness	14	0	1	5	4	2
Ecological Environment Competitiveness	11	2	0	0	2	7
Environment Carrying Competitiveness	15	4	1	2	1	2
Environment Management Competitiveness	10	1	2	1	2	4
Environment Harmony Competitiveness	10	1	4	0	0	5
Total	60	8	8	8	9	20

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